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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,916	02/28/2002	Jayaraman Ramaswamy Iyer	062891.0586	1692
5073	7590	12/13/2005	EXAMINER	
BAKER BOTTS L.L.P. 2001 ROSS AVENUE SUITE 600 DALLAS, TX 75201-2980			JONES, PRENELL P	
			ART UNIT	PAPER NUMBER
			2668	

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/086,916

Applicant(s)

IYER ET AL.

Examiner

Prenell P. Jones

Art Unit

2668

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-17, 19, 24, 25, 27 and 29 is/are rejected.
- 7) ☒ Claim(s) 5, 18, 20-23, 26, 28 and 30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/23/03</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

***Drawings***

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claim 27 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 27, in line 1, Applicant is claiming "The computer readable medium of claim 23," which is unclear to Examiner as to exactly what Applicant is claiming. Claim 23 is not a computer readable medium.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2668

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-3 rejected under 35 U.S.C. 102(e) as being anticipated by Gopikanth (PG PUB US 2003/0129971).

Regarding claim 1, Gopikanth discloses communication between multiple wireless communication systems wherein the architecture includes base transceiver stations in communication with mobile networks (PLMN) and mobiles whereby the QoS is monitored by a QoS manager, a mobile sets a class of service (CoS) for wireless traffic (paragraph 0031-0037, PLMN defines CoS as it is associated with synchronization of channel bandwidth and its' availability to provide connection for user to establish session), and a BTS establish communication session with mobile, BTS determines CoS for session set by mobile (paragraph 0018-0021, 0033, 0038-0041, BTS provides channel bandwidth for as associated with mobile required CoS)

Art Unit: 2668

Regarding claim 2, as indicated above, Gopikanth discloses communication between multiple wireless communication systems wherein the architecture includes base transceiver stations in communication with mobile networks (PLMN) and mobiles whereby, the QoS is monitored by a QoS manager. Gopikanth further discloses packets (radio frames) in a radio environment (paragraph 0014-0020, communication as associated in a packet-switched radio environment).

Regarding claim 3, as indicated above, Gopikanth discloses communication between multiple wireless communication systems wherein the architecture includes base transceiver stations in communication with mobile networks (PLMN) and mobiles, whereby the QoS is monitored by a QoS manager. Gopikanth further discloses mobile setting CoS for traffic in a particular field (paragraph 0034, mobile requires that in setup the CoS code uses a "1" in the no guaranteed bandwidth field).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gopikanth (PG PUB US 2003/0129971) in view of Koo et al (PG PUB US 2001/0046220).

Regarding claim 4, Gopikanth discloses communication between multiple wireless communication systems wherein the architecture includes base transceiver stations in communication with mobile networks (PLMN) and mobiles whereby, the QoS is monitored by a QoS manager. However, Gopikanth is silent a transport format combination indicator field (TFCI). In a radio mobile communication system, Koo discloses utilizing a 2-bit TFCI as associated with the transmission of radio frames and service classes (paragraph 0065, 0243, 0535, 0630). Therefore, it would have been motivated to implement TFCI in radio frames as taught by Koo with the teachings of Gopikanth for the purpose of further controlling and managing services assigned to subscribers as well as minimizing latency as associated with class of service.

8. Claims 6, 7, 8, 10-13, 16, 17, 19, 25, 24 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gopikanth (PG PUB US 2003/0129971) in view of Wang et al (US PAT 6,775,268).

Regarding claim 6, 11, 16 and 24, as indicated above, Gopikanth discloses communication between multiple wireless communication systems wherein the architecture includes base transceiver stations in communication with mobile networks (PLMN) and mobiles whereby, the QoS is monitored by a QoS manager. However, Gopikanth is silent on mapping traffic to routing channels with respect to CoS. In a wireless radio communication system wherein mapping packet data as associated with categories, Wang discloses mapping polices for mapping packet data to channels as associated with QoS/CoS (Fig. 3-5, col. 7, line 33-67, col. 9, line 1-40, col. 10, line 5-46). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

Art Unit: 2668

invention to be motivated to implement mapping packet data to channels with respect to CoS as taught by Wang with the teachings of Gopikanth for the purpose of further managing communication services among subscribers as well as minimizing latency.

Regarding claim 7, as indicated above, Gopikanth discloses communication between multiple wireless communication systems wherein the architecture includes base transceiver stations in communication with mobile networks (PLMN) and mobiles whereby, the QoS is monitored by a QoS manager. Gopikanth further discloses packets (radio frames) in a radio environment (paragraph 0014-0020, communication as associated in a packet-switched radio environment).

Regarding claim 8, as indicated above, Gopikanth discloses communication between multiple wireless communication systems wherein the architecture includes base transceiver stations in communication with mobile networks (PLMN) and mobiles, whereby the QoS is monitored by a QoS manager. Gopikanth further discloses mobile setting CoS for traffic in a particular field (paragraph 0034, mobile requires that in setup the CoS code uses a "1" in the no guaranteed bandwidth field).

Regarding claim 10, Wang further discloses mapping policies for mapping packet data to channels as associated with QoS/CoS in a wired telecommunication link (Fig. 2, col. 5, line 65 thru col. 6, line 20).

Regarding claim 13, as indicated above, Gopikanth discloses communication between multiple wireless communication systems wherein the architecture includes base transceiver stations in communication with mobile networks (PLMN) and mobiles

Art Unit: 2668

whereby, the QoS is monitored by a QoS manager. Gopikanth further discloses packets (radio frames) in a radio environment (paragraph 0014-0020, communication as associated in a packet-switched radio environment).

Regarding claim 17, as indicated above, Gopikanth discloses communication between multiple wireless communication systems wherein the architecture includes base transceiver stations in communication with mobile networks (PLMN) and mobiles whereby, the QoS is monitored by a QoS manager. Gopikanth further discloses packets (radio frames) in a radio environment (paragraph 0014-0020, communication as associated in a packet-switched radio environment).

Regarding claim 19, Wang further discloses assembling/encapsulate wireless frames into IP data packets (col. 12, line 17-31).

Regarding claim 25, as indicated above, Gopikanth discloses communication between multiple wireless communication systems wherein the architecture includes base transceiver stations in communication with mobile networks (PLMN) and mobiles whereby, the QoS is monitored by a QoS manager. Gopikanth further discloses packets (radio frames) in a radio environment (paragraph 0014-0020, communication as associated in a packet-switched radio environment).

Regarding claim 29, Wang further discloses assembling/encapsulate wireless frames into IP data packets (col. 12, line 17-31).



Art Unit: 2668

9. Claims 9, 14, 15 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gopikanth (PG PUB US 2003/0129971) in view of Wang et al (US PAT 6,775,268) as applied to claims 6, 7, 8, 10-13, 16, 17, 19, 24, 25 and 29 above, and further in view of Koo et al (PG PUB US 2001/0046220).

Regarding claims 9, 14, 15 and 27, as indicated above, Gopikanth and Wang combined discloses communication between multiple wireless communication systems wherein the architecture includes base transceiver stations in communication with mobile networks (PLMN) and mobiles whereby, the QoS is monitored by a QoS manager, mapping polices for mapping packet data to channels as associated with QoS/CoS. However, both Gopikanth and Wang are silent on utilizing transport format combination indicator (TFCI). In a radio mobile communication system, Koo discloses utilizing a 2-bit TFCI as associated with the transmission of radio frames and service classes (paragraph 0065, 0243, 0535, 0630). Therefore, it would have been motivated to implement TFCI in radio frames as taught by Koo with the combined teachings of Gopikanth and Wang for the purpose of further controlling and managing services assigned to subscribers as well as minimizing latency as associated with class of service.

#### ***Allowable Subject Matter***

10. Claims 5, 18, 20, 21-23, 26, 28 and 30 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: Although the combined prior art discloses in a wireless radio communication system utilizing QoS/Cos for assigning packets to channels, they fail to teach or suggest

Art Unit: 2668

with respect to claim 5, 20, 21, 30, differentiated service code point field in the header information of each Internet Protocol packet, and class of service mapped into differentiated service code point field, class of service indication in the differentiated services code point field, w/r to claims 18, 22, 23 and 26, transport format combination indicator field operable to carry the class of service indication, and w/r to claim 28, provide CoS indication during communication session for insertion into wireless traffic.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prenell P. Jones whose telephone number is 571-272-3180. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Prenell P. Jones 

December 10, 2005

  
CHIEH M. FAN  
SUPERVISORY PATENT EXAMINER